

From qrp-1@lehigh.edu Mon Feb 26 06:26:38 1996
From: Jim Hunter <jhunter@sunrise.alpinet.net>
Subject: [4686] artificial ground
Message-ID: <Pine.SOL.3.91.960225171205.28267A-100000@sunrise.alpinet.net>

Has anyone used an artificial ground like MFJ's? I am forced to use a random wire and have no place to ground. I wonder how they would work on qrp rather than higher power levels???

Thanks

Jim -- wa7zxn

From qrp-1@lehigh.edu Mon Feb 26 06:26:38 1996
From: bobhigh@primenet.com (Bob Hightower)
Subject: [4688] CQRP Sprint
Message-ID: <199602260407.VAA07334@usr1.primenet.com>

Well, I bit the bullet and did it; worked my first ever CW contest, and had a ball, even with the frustrations of finding distant stations covered up by someone who obviously can't hear them. Such is life, especially qrp.

Only made 4 valid contacts, but had a great time listening and trying. Worked with a NorCal 40A and a Bic Flamethrower as an inverted vee. I have to apologize for my lousy code speed in the beginning, but I did, I think, get better towards the end. You can be sure I'll be in on the rest of them that come up. Thanks to the Colorado QRP Club for having this contest, and to those who participated, for livening up an otherwise dull Sunday evening.
73,
Bob KI7MN NorCAL #1228, qrp-ARCI #8918, qrp-1 #271

From qrp-1@lehigh.edu Mon Feb 26 06:26:38 1996
From: Jeffrey Hetherington <jhetheri@freenet.npiec.on.ca>
Subject: [4681] DX Bulletins.
Message-ID: <Pine.3.89.9602251240.D20373-0100000@freenet>

I know this is not directly a QRP related request, but I hope that there is somebody out there that can direct me to some DX Bulletins on the WWW. The server I used to pull them from no longer has them.

Tnx.

Jeff - VA3JFF

=====
L. JEFFREY HETHERINGTON
Niagara Falls, Ontario, Canada
E-Mail : jhetheri@freenet.npiec.on.ca

From qrp-l@lehigh.edu Mon Feb 26 06:26:38 1996
From: "David E. Shelton" <deshel01@homer.louisville.edu>
Subject: [4669] FS: Vibroplex Iambic Standard paddle
Message-ID: <Pine.OSF.3.91.960225003133.29470A-100000@homer.louisville.edu>

For anyone interested in a very nice paddle I have a Vibroplex Standard Iambic paddle for sale it has the the gray base but the same workings as any of the other Vibroplex Iambics, SN 67126. It is in excellent condition and the asking price is \$90 plus UPS.

73/72,

David E. Shelton, RN, BSN KE4FPS |
|
University of Louisville, SON |
deshel01@homer.louisville.edu |
102551,1470@compuserve.com |
KE4FPS@WD9AGK.#SIN.IN.USA.NA (packet) |
"Every Patient Deserves A Nurse!" |
|
QRP ARCI #9079 FISTS #2103 QRP-L #142

From qrp-l@lehigh.edu Mon Feb 26 06:26:38 1996
From: Mike.Czuhajewski@bbs.abs.net (Mike Czuhajewski)
Subject: [4683] Got another milliwatt beacon
Message-ID: <1996Feb25.153820.8060@abs.net>

I got the WA3NNA QRP beacon last night as low as 2 milliwatts, though it was extremely rough, and I only heard the codeword once. 20 mw was easier. I must say I was a bit disappointed when I did the CALLS2DIST run via listserv@lehigh.edu and found out we're a mere 91 miles apart :-). I really like the method of switching to a lower power level every 2 minutes or so--much better than having to wait much longer to get to

a really low level and giving propagation plenty of time to deteriorate before then. The system is good; the only fine tuning steps I would suggest would be to reduce the period spent at each power level, so we don't have to wait so long until the next time it hits whatever level is borderline for us and see if we can get the code word. The other suggestion, which I'll do myself if/when I get a QRP beacon going, is to use smaller steps--10 dB is a bit much, and I know I could have easily copied 10 mw and maybe even 5, but going directly from 20 mw to 2 mw is a bit severe. Maybe cut it in half each time instead of by a factor of ten. The trade off is having to wait a lot longer before it gets down to really low levels.

I really love the use of 2 watts at the start for a spotter signal! Makes it soooooo much easier to find, and also provides for some easily heard activity on the frequency every now and then and might keep others away. There were a few people sending "QRL" when someone wandered on freq last night and started calling, but for the most part people kept away from it, which really helps when you're trying to dig out the really weak levels.

This QRP beacon business is a lot of fun--thanks to AA4XX for getting it going! (And thanks to him for alerting people to beacon runs ahead of time via e-mail--since I'm chronically behind on reading the daily digests, I wouldn't otherwise know about them until a week later!)

73 and Queue Our Pea DE WA8MCQ wa8mcq@bbs.abs.net

--

Mike Czuhajewski, user of the UniBoard System @ abs.net

E-Mail: Mike.Czuhajewski@bbs.abs.net

The WB3FFV Amateur Radio BBS - Located in Baltimore, Maryland USA

Supporting the Amateur Radio Hobby, and TCP/IP InterNetworking

From qrp-1@lehigh.edu Mon Feb 26 06:26:38 1996

From: Bill Acito 25-Feb-1996 2113 <acito@asdg.ENET.dec.com>

Subject: [4687] Heard the 80m Beacon

Message-ID: <9602260212.AA04568@us1rmc.bb.dec.com>

From my QTH (nr Worcester MA), heard and copied the word for 2w,
heard characters but didn't get the word for 200mw.

b

. - I own my own words -

Bill Acito

acito@asdg.enet.dec.com

|d|i|g|i|t|a|l| Digital Equipment Corporation Hudson, MA

KC1GS ... qrp-ne ... qrp-l ... qrp-arci ... norcal ... arrl life ...

From qrp-l@lehigh.edu Mon Feb 26 06:26:38 1996

From: "Frank G3YCC" <g3ycc@enterprise.net>

Subject: [4674] Help requested

Message-ID: <199602251102.LAA21546@mail.enterprise.net>

>From : KD6TK

To : QRP @WWW

Type/status : B\$

Date/time : 23-Feb 20:29

Bid : 25944_OZ6BBS

Message # : 70548

Title : CMOS & FET transmitter help wanted!

Path: !GB7EYM!GB7MSF!IK40MO!IW4CNQ!IW4CQH!I4UJB!PHONE!SK6YW!SK6FV!SK7CY!
!OZ6BBS!

From: KD6TK@OZ6BBS.KBH.SJL.DNK.EU

To : QRP@WW

Help!

I am looking for an article by Lou Smith, N7KSB, which I think is titled "An easy to build 15 watt transmitter" which uses a 74HC240 buffer which drives a MOSFET amplifier.

A fellow ham who has me hooked into foxhunting wants to build it as a transmitter for 160 meters. The 1996 ARRL handbook cites this transmitter in a reference which was published in "Hambrew mag.", which I have not been able to locate here in Denmark.

Does anyone know anything about this transmitter? Any way I may obtain a circuit diagram? Is N7KSB on e-mail???

We have several inches of snow on the ground and it's hovering around zero Celsius at noon.... fox hunt on Sunday...should be fun!

D.K. Philbin
OZ2DKP & KD6TK
KD6TK@OZ6BBS.KBH.SJL.DNK

===== End of message #70548 =====

If you can help, please either send him a message on packet, or let me know the details and will do so. Perhaps he is on the Net, I don't know.

Please let me know if you are able to assist.

Thanks

72/3

73

Frank G3YCC
packet: G3YCC@GB7HUL.#15.GBR.EU

From qrp-1@lehigh.edu Mon Feb 26 06:26:38 1996
From: Steve Bornstein <saborns@freenet.columbus.oh.us>
Subject: [4684] Help! Need J309 J310 or 2N5484 for 49er
Message-ID: <Pine.3.07.9602251756.A22404-9100000@acme>

Hello Gang,

I've been working on two 49er projects (one for me, one for a friend), but still need 2 J309, J310, or 2N5484 JFET's. Does anyone have some to spare or know of a reasonable source? I have an ample supply of Altoids boxes if any one could use them.

73, Steve K8IDN QRP-L #331

Steven Bornstein K8IDN
475 East North Broadway
Columbus, Ohio 43214

From qrp-1@lehigh.edu Mon Feb 26 06:26:38 1996
From: aero@napanet.net (Richard Slavens)
Subject: [4670] Keyer Paddles ??
Message-ID: <199602250630.WAA32513@bugs.napanet.net>

I'm looking for a new keyer paddle for portable (backpack type) operation. I'd like to spend less than \$100 if possible.

Anybody using the Vibroplex Brass Racer, if so, how do you like it? I've seen the ad in Ham Radio Outlet, but I'm a little unclear as to how it works with "no adjustment screws". How does one adjust the contact gap?

TNX ES 72,
Dick

Richard Slavens (APC) Napa, CA N19313 WA6TMF
aero@napanet.net

From qrp-l@lehigh.edu Mon Feb 26 06:26:38 1996
From: kd7s@valleynet.com (Bill Jones)
Subject: [4679] Receiver Design
Message-ID: <199602251704.JAA14433@valleynet.com>

The recent post by Wayne Burdick titled "Re: Receiver Performance, Number of Conversions, etc." clearly demonstrates that not all NE602 based receiver front ends are created equal. This kind of information is priceless to anyone interested in going beyond simply duplicating someone else's design. Wayne's discussion just explained to me why some of my homebrew receivers work well, while others do not. A case in point is the receiver section of the 49'er. It's performance clearly demonstrates that a circuit need not be complicated in order to work well if it's properly designed. So to you, Wayne Burdick, I say THANK YOU for paving the way toward a higher level of understanding.

=====
Bill Jones - KD7S <><
QRP-L Member #85
Sanger, California
Reply to kd7s@valleynet.com
=====

From qrp-l@lehigh.edu Mon Feb 26 06:26:38 1996
From: kellner@usa.acsys.com (Richard G. Kellner)
Subject: [4671] Sierra ABX
Message-ID: <9602250700.AA28089@usa.acsys.com>

Wayne,
I received the Wilderness Sierra manual from Bob yesterday, and I added the ABX mod to my original NorCal Sierra this afternoon.

It works beautifully. I think it's really neat how you took what initially seemed to me like a disadvantage (the center of the filter changing with filter width) and turned it into an advantage (the bandpass spreading out in such a way as to turn into a good SSB filter). Thanks and 73,
Rich W5RXP

From qrp-1@lehigh.edu Mon Feb 26 06:26:38 1996
From: "Robert J. Gobrick" <rgobrick@nfld.com>
Subject: [4676] Re: Keyer Paddles ??
Message-ID: <2.2.32.19960224145524.0075cef4@public.compusult.nf.ca>

Hi Dick,

The Vibroflex Brass Racer is one of the better keyers out there and what's nice for portable/backpack use is that there are no springs etc like the Bencher/MFJ units that may get tangled up with your gorp and sawed of toothbrush. The downside is that the Vibroflex has a nice heavy brass and wood base which is great for home use (doesn't skid around the table) but weighty for backpacking.

I have the famous serial number #1 of the new "Square-Based" Brass Racer which I am doing a review on. By the way this serial number #1 (as pictured in February 96 CQ magazine) is on loan to me with "word" out on the street for some drastic action if it's not returned. I won't announce on the QRP-L who this lucky owner is since he will be hounded like Kurt Sterba for autographs etc.

Finally you may want to explore if you haven't already an interesting alternative for backpackers and that is the plastic light weight Whiterook Products iambic keyer for \$10 (advertized in back issues of Nuts and Volts). The price is right, the weight is right and the size is right - the question is will it be right for you. \$10 will give you the answer.

Good luck 73/72 Bob V01DRB/WA6ERB

PS: The Brass Racer does not use "adjustment screws" but adjustment "allen wrench" screws for contact gap changes. Also the magnetic tensioning is now down by a tightly machined force fitted manual (no screws) adjustment which makes for quick tensioning changes to suit your everyday mood (a lazy Sunday vs looking for the Fox)

At 01:30 2/25/96 EST, you wrote:

>I'm looking for a new keyer paddle for portable (backpack type)
>operation. I'd like to spend less than \$100 if possible.
>

>Anybody using the Vibroplex Brass Racer, if so, how do you like
>it? I've seen the ad in Ham Radio Outlet, but I'm a little
>unclear as to how it works with "no adjustment screws". How does
>one adjust the contact gap?

>

>TNX ES 72,

>Dick

>-----

>Richard Slavens (APC) Napa, CA N19313 WA6TMF

>aero@napanet.net

>

>

>

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| Bob Gobrick - VO1DRB/WA6ERB/VE2DRB - Newfoundland, Canada |
| QRP'er Galore - ARCI, GQRP, NORCAL, NEQRP, COQRP, MIQRP, NWQRP |
| Internet:      rgobrick@nfld.com |
|                bgobrick@nlnet.nf.ca |
| Compuserve:   70466.1405@compuserve.com |
```

From qrp-1@lehigh.edu Mon Feb 26 06:26:38 1996

From: "Robert J. Gobrick" <rgobrick@nfld.com>

Subject: [4677] Re: new ham

Message-ID: <2.2.32.19960224145523.0075eb8c@public.compuserve.nf.ca>

Congratulations George and you're at the start of a new "adventure" in your life.

By the way don't thank the "Virtual Elmers" totally - a lot of what you learned is because you have the drive for curiosity - keep that trait active.

Good luck and now you have all these decisions - what rig to use?, what antenna?, what band?, what bank? - things would have been easier with the Tech+ ticket - hi (ham language for laughing) or ;^) in computerese.

73/72 Bob VO1DRB/WA6ERB

At 20:07 2/24/96 EST, you wrote:

>Hi guys and gals.

So today I went from unlicensed SWL to general class ham.

>

>I want to thank all the VEC examiners for their encouragement;

>all the folks on the 40 and 80 meter novice bands for their

>unintentional code practice; W1AW for their intentional code practice and

>especially all the VIRTUAL ELMERS on qrp-l for their help with the
>theory.

>

>73 and see you on the air soon.

>George Stratemeier

>

>

>=====

>An armed society is a polite society. -Robert Heinlein-

>

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>

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|-----|
| Bob Gobrick - VO1DRB/WA6ERB/VE2DRB - Newfoundland, Canada |
| QRP'er Galore - ARCI, GQRP, NORCAL, NEQRP, COQRP, MIQRP, NWQRP |
| Internet:      rgobrick@nfld.com |
|                bgobrick@nlnet.nf.ca |
| Compuserve:   70466.1405@compuserve.com |
|-----|
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From qrp-l@lehigh.edu Mon Feb 26 06:26:38 1996

From: GREGOIRE@ENDOR.COM (ERNEST GREGOIRE)

Subject: [4682] Re: new ham

Message-ID: <199602251908.0AA68896@nss2.CC.Lehigh.EDU>

Again

>the examiners asked if I would like to go for general written. I

>was really doubtful since I hadn't studied for this but I tried it.

>AGAIN I PASSED!

>

>73 and see you on the air soon.

>George Stratemeier

>

>

>=====

>An armed society is a polite society. -Robert Heinlein-

Hello George,

Congratulations on the fine upgrades. Keep Up the good work.

The advanced test is the toughest one of all IMHO. Continue to
upgrade, the time spent on it now will be well invested in your entire ham
radio career. It's a nice feeling to know that you don't have to take
another exam ever again. When it's over, you can do anything you want to,

all avenues available to ham radio operators will be your.

Again, congrats OM>

P.S. I like the Colt 45. officers model.

de AA1IK N.E.-QRP-C. # 202 (Lead by example, It is better to)
 QRP-L member #95. (pull a string than it is to push it.)

Ernie Gregoire
RR 1 Box 221
Canaan, NH. 03741

New England QRP Club, information
available on request by sending me a
S.A.S.E. or via E-mail.

e-mail : GREGOIRE@ENDOR.COM
packet : AA1IK@WA1WOK.FN43FE.NH.USA

From qrp-l@lehigh.edu Mon Feb 26 06:26:38 1996
From: JC_Smith@designlink.com (JC Smith)
Subject: [4685] Re: Re: Keyer Paddles ??
Message-ID: <4081119198.113334231@designlink.com>

Hi Dick... Nothing beats heavy, smoothe operating keyer paddles (my favorite is the Kent Engineers kit), but you can't lug around a set of paddles that weighs more than your rig when you are backpacking. Check out N6YQD's "Lite Gear" paddles in the Sept. 1994 issue of QRPp. Terry designed these specifically for backpacking, and they work well and weigh less than an ounce. With a little practice you can do 20 - 25 WPM, but if you prefer 30+ speeds, this might not be for you. Terry had a good supply of the switches, and was selling them at near cost to NorCal members. I also like the "Lite Gear" antenna discribed in the same article, and have made hundreds of contacts on it with my NC-40 from campsites, picnics and other outings.
72, JC - KC6EIJ

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Sent from Designlink, San Francisco. Design, Graphics, Photo, Portfolios Online.
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WEB: <http://www.designlink.com>

From qrp-l@lehigh.edu Mon Feb 26 06:26:38 1996
From: RobCap@aol.com
Subject: [4678] Re: Re>HW-9
Message-ID: <960225113512_431152299@emout10.mail.aol.com>

Mike-

You write: "How about a day to day runing commentary of putting the HW-9 together? I know I would enjoy it."

Well, I'm not sure the QRP-L could stand actual day-to-day coverage (hi), but I'll check in periodically.

I'm out of town on business now, so will fire up the iron on Monday night. Hope to finish the oscillator board on Monday, and go on to the T/R board on Tuesday.

I'm taking extra care with the HW-9 for purposes of enjoyment, and so that the kit comes out extra nice. I'm keeping all of the panels wrapped in plastic until I'm ready to install them. Not a scratch on the kit anywhere. I'm also not going to do any mods that show on the exterior (keyer pot, memory keyer buttons, speaker, etc.) I'm going to keep the radio original. I plan several internal mods, such as a resistor/capacitor change that's recommended for increased audio output. But these will be part value substitutions, that will be virtually "invisible". I found these in the HW-8 handbook published by Michael Bryce (\$11 postpaid).

I wish you could see the quality of the materials used in the kit. The rotary band switch is ingenious, and you actually build it as you go. The meter and dial are beautiful. The tuning knob is attractive, and functional with two dimples. As one gentlemen wrote to me, he described the HW-9 as Heath's best of breed.

We lament that many new operators today are "appliance" operators. While there are fine kits to build today, they are from tiny companies that market to enthusiasts. Heath used to have showrooms in many cities. People could peruse the showrooms and catalogs and fall in love with kits to build. I think that Heath's going out of business is one factor (probably of many factors) that has led to the shift towards appliance operators and away from experimentation.

Will keep QRP-L posted.

73,

Rob

From qrp-1@lehigh.edu Mon Feb 26 06:26:38 1996
From: burdick@interval.com (Wayne Burdick)
Subject: [4672] Re: Receiver Performance, Number of Conversions, etc.
Message-ID: <199602251004.CAA13169@interval.interval.com>

James, thanks for your observations about receiver design. Some comments:

>MXM receiver is a good performer because it is well designed...not because
>it is inherently double conversion.

Thanks for getting this fact out into the open. "Double conversion" sounds impressive, but nearly always results in a "weaker" receiver (less dynamic range) unless extreme care is applied at the first two or three stages. The reason that double-conversion is usually chosen is as a substitute for pre-mixing the VFO; it can in fact reduce parts count. But this puts THREE mixers in the signal path (two mixers and a product detector, actually), which is likely to reduce signal-handling capability.

* * *

>NE602-MC1350-NE602 single conversion scheme...simple...cost effective...

And let's not forget low current drain, important for battery operation, which most QRP operators attempt at one time or another. That's why I've kept using the '602 in all of the NorCal/Wilderness designs.

* * *

>15 dB gain before the crystal filter makes the receiver sensitive to
>nearby QRO stations, foreign broadcast stations on 40M...

Gain isn't the problem. It's the intermodulation and de-sensing caused by the low bias point of the Gilbert-cell multiplier used in the '602. And better filtering won't help for extremely strong in-band signals.

Two techniques I use to improve the situation are (1) add an RF gain control; (2) provide some inherent attenuation ahead of the mixer by using light coupling at various points in the input filter. Method (2) is quite useful on the lower bands because you don't need much if any gain ahead of the first crystal filter.

On the Sierra I have control over this because of the individual band modules. On 40 and below, I reduce the number of turns on the input link

to the first BPF section well below that required for optimum power transfer. Besides attenuating everything by 10dB or so, this reduces loading on the BPF, which can then have even higher Q.

* * *

>MC1350 IF amplifier...would put the second NE602 used as a product
>detector in a similar sensitive position to strong signals...[so] use AGC...

In addition to using AGC on the Sierra, I build-in quite a bit of attenuation between the MC1350 and the product detector. As you mentioned, a second crystal filter cuts wideband noise (this is straight out of 'ZOI's "SSD"). In the Sierra, I heavily load the 1-crystal filter at both ends (with large capacitance), narrowing the filter and reducing the maximum signal input to the product detector to about 20mV p-p. This is well within the signal handling capability of the '602.

* * *

>The use of AGC on many of the QRP rigs which can reduce the gain
>of the MC1350 to 20 dB or so...

Actually, an MC1350-based AGC works far better than that. AGC range of the '1350 is more like 60 or 70dB when properly applied, so that overall, the '1350 is actually an *attenuator*. Note that the Heath HW9 used a now non-existent "improved" device, the MC1349. This part had 20dB more gain, allowing the AGC detector to be located at the output of the I.F. amp, resulting in I.F.-derived AGC. However, the '1349 wasn't as stable as the '1350 and was discontinued.

* * *

>...the output impedance of the NE602 and input impedance of the MC1350 is
>>several thousand ohms...some QRP rigs properly terminate the crystal
>filter...

True enough. Most designs terminate the crystal filter at the '1350 with a resistor in the vicinity of 500ohms. I chose to use a step-up network at both ends of the filter to match to both the receive mixer and the '1350, and this seems to work well (excellent power transfer). Someone else recently pointed out that transformer coupling into the '1350 works even better because balance is preserved, resulting in less AGC "pop" on big signals.

* * *

>crystal filter following the MC1350...two pole crystal filter
>should be sufficient

Again, this is right out of SSD, and in my experience even a 1-pole filter does the trick. The Sierra uses this technique, and in addition I use varactors in both filters to vary the filter bandwidth from 150 to 1500Hz. It's quite effective. Noise is low.

* * *

>With almost any receiver, better reception of weak signals in the
>presence of strong signals can be had by turning off the AGC, backing off
>on the RF gain until the signal is just receivable and controlling the
>volume by using the audio gain control.

Usually, but if there is QSB on the weak station, you'll be riding the RF gain control a lot, too. I recommend a sharp crystal filter in all cases to pick weak signals out of the QRM.

* * *

One final comment: It's amazing how long the '1350 has been around; almost as long as the venerable 2N2222A. Some things are classics that are hard to improve. The challenge for QRP designers and builders in the future will be how to contend with the *loss* of these classic parts. When everything is surface mount, hobbyists and small-market manufacturers will have to either get out the magnifying glasses or pay extra for third-party mounting of surface-mount devices on DIP headers.

Thanks for reading this far! The Sierra exemplifies all of the techniques you described, and I'd be happy to send you a copy of the schematic for comments and suggestions. Better yet, borrow one and let me know what you think!

73,
Wayne
N6KR

From qrp-1@lehigh.edu Mon Feb 26 06:26:38 1996
From: william.redfearn.cmwd01@nt.com
Subject: [4675] re:Scout Current Draw VS Argo
Message-ID: <"26517 Sun Feb 25 08:49:37 1996"@nt.com>

Both the Scout and Argo pull approx. 500 - 600 ma. on receive.
Set to 5 watts out, the two Scouts I had, drew approx. 4 - 5 amps.

My Argo, set to 5 watts out, draws approx. 1.5 - 2 amps.

73 - Dave.

=====

Dave Redfearn, Sr RF Systems Engineer NORTEL RTP, NC.
ph.(919) 992-3925 email: william.redfearn.cmwdrr01@nt.com
qrl? de N4ELM/qrp

All opinions are my own, no one else wants them.

From qrp-1@lehigh.edu Mon Feb 26 06:26:38 1996
From: burdick@interval.com (Wayne Burdick)
Subject: [4673] Re: Sierra ABX, plus: VFO range switching, and receiving USB/LSB
Message-ID: <199602251024.CAA13443@interval.interval.com>

Hi Rich,

Glad you like the ABX mod. I use it all the time now and really love it.

I made another mod today that you might like to try: a VFO range switch that lets me get up into the SSB parts of the band. It's fun to listen to LSB on 160 through 40, and you can listen to USB as well if you add a BFO switch.

To add VFO range switching:

Put a small (very small) SPDT-center off toggle switch under the PCB, at the far bottom right-hand corner of the front panel. Connect the center terminal of the switch to where the VFO tuning cap and the 180pF cap meet. Next, put a 33pF silver mica or NPO ceramic disc from one side of the switch to ground, and a 75pF from the other side to ground.

Result: about 0-150kHz in the OFF position (center), 150-250kHz w/ the 33pF cap, and 300-400kHz with the 75pF cap. You can use different caps if you want complete overlap. Note that the tuning is not as linear in the higher ranges and doesn't cover exactly 150pF. This is because the inductance has stayed fixed.

Also note that you may have to reduce the size of the 180pF cap to take account of the capacitance added by the switch, even in the center-off position. In my case, I had to add a 1200pF polystyrene cap in series with the 180pF cap to get it down to about 160pF. You may not have to do this if you have enough range left in the VFO setting trimmer.

To add the LSB/USB switch:

Mount another small toggle switch (DPDT, *not* center off) as close as possible to the BFO crystal (possibly between the RF and AF gain controls). The crystal must then be rewired from the switch common to C16, the original trimmer. The "LSB" side of the switch then goes through the 39uH choke to ground, and the "USB" side can go through an additional 50pF trimmer to ground.

To align the BFO, adjust the original trimmer in the "LSB" position, then adjust the new USB trimmer in the "USB" position.

Note that LSB/USB are reversed on 10 and 12 meters.

Have fun! I still hope to do an SSB adapter for the Sierra converter sometime, and this is the first stage of the modification.

73,
Wayne
N6KR

From qrp-1@lehigh.edu Mon Feb 26 06:26:38 1996
From: kellner@usa.acsys.com (Richard G. Kellner)
Subject: [4689] Re: Sierra ABX, plus: VFO range switching, and receiving USB/LSB
Message-ID: <9602260422.AA29013@usa.acsys.com>

> From burdick@interval.com Sun Feb 25 03:25:02 1996
> To: kellner@usa.acsys.com (Richard G. Kellner)
> Subject: Re: Sierra ABX, plus: VFO range switching, and receiving USB/LSB
> Cc: qrp-1@lehigh.edu
>
> Glad you like the ABX mod. I use it all the time now and really love it.
>
> I made another mod today that you might like to try: a VFO range switch
> that lets me get up into the SSB parts of the band. It's fun to listen to
> LSB on 160 through 40, and you can listen to USB as well if you add a BFO
> switch.
>

Last night was a perfect time to test SSB operation on the Sierra. There was some sort of a SSB DX contest going on, and I could hear very clearly Japan, Venezuela, St. Pierre & Miguelon Is., etc. on 40m LSB. I even called the op from Japan on CW with the Sierra, but no luck.

(He might even have gotten a x10 multiplier for working QRP CW ... hi.)
Also could clearly hear the AM foreign broadcast stations. 7.040 was
dead except for a weak carrier which I hear most of the time, but the low
end of 40 was hopping with DX. (All this was in the 7.0 -> 7.150 range.)

> To add VFO range switching:

>

> Put a small (very small) SPDT-center off toggle switch under the PCB, at

>

I have just the perfect submini switch ... if only I could find it!

>

.. instructions deleted

>

> Have fun! I still hope to do an SSB adapter for the Sierra converter

> sometime, and this is the first stage of the modification.

>

> 73,

> Wayne

> N6KR

>

Thanks for the detailed modification instructions, Wayne. I'm looking
forward to adding SSB capability to the Sierra in stages, even though I
mostly operate CW.

73, Rich W5RXP

>

>

>

From qrp-1@lehigh.edu Mon Feb 26 06:26:38 1996

From: "Rafael Garcia (EA4RJ)" <tie@bitmailer.net>

Subject: [4680] Re: Which vertical antenna for 30m?

Message-ID: <Pine.LNX.3.91.960225163054.353D-1000000@ea4rj.ampr.org>

Public thanks to all who answered my posting.

I will not try a 1/8 wave vertical as I thought, because will not give a
good perform on the air.

Regards,

Rafael,

Madrid (Spain)